



Canadian Institutes
of Health Research Instituts de recherche
en santé du Canada

**CANADIAN INSTITUTES OF HEALTH
RESEARCH**



2011-2012 ESTIMATES

**PART III -- REPORT ON PLANS AND
PRIORITIES**

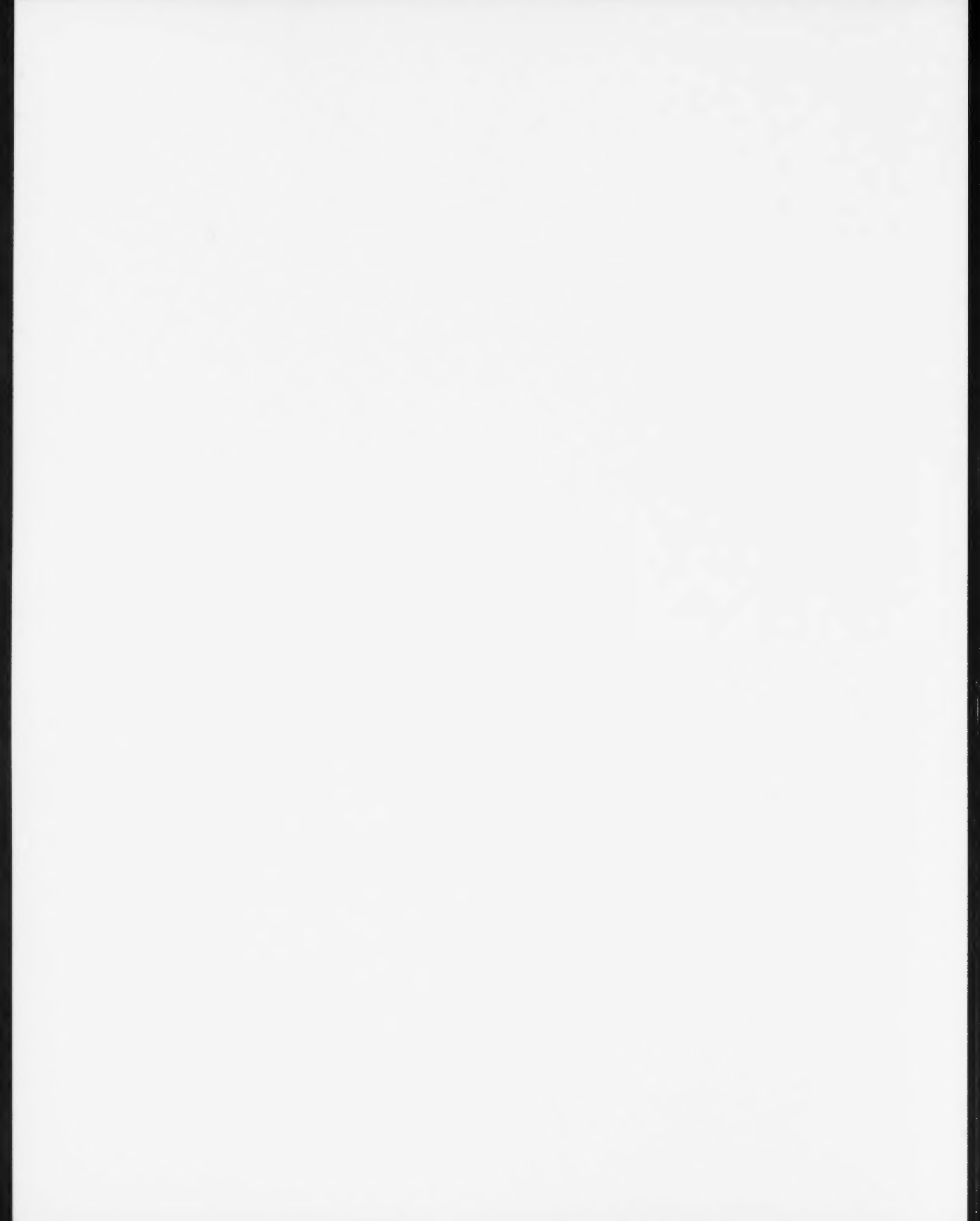
**LEONA AGLUKKAQ
MINISTER OF HEALTH**

The original version was signed by
The Honourable Leona Aglukkaq
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Canada

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Minister's Message

It is my pleasure to present to my parliamentary colleagues, and all Canadians, the Canadian Institutes of Health Research (CIHR) Report on Plans and Priorities for the fiscal year 2011-2012.

As a member of the Government of Canada's Health Portfolio, CIHR funds research that will improve the health of Canadians, strengthen Canada's health-care system, and produce commercially viable products and services.

CIHR is at the core of a vibrant, innovative and internationally competitive health research community in Canada. This sector is critical not only to the health and well-being of Canadians, but also to the prosperity of our economy and sustainability of our health care system. CIHR plays a critical role in helping the Government of Canada achieve the objectives of its Science and Technology Strategy released in 2007.



The Government of Canada has invested in the future development of our research community through a variety of programs, including the recently created Canada Excellence Research Chairs program and the Banting Postdoctoral Fellowships program. These programs are designed to attract and retain top research talent in Canada to keep Canada at the forefront of a wide range of health research fields. Today, CIHR supports close to 14,000 health researchers and trainees in universities, teaching hospitals and other research centres across the country.

Over the past year, CIHR has demonstrated its value to Canadians on issues ranging from pandemic preparedness to alternatives for medical isotopes. In 2011-2012, CIHR will continue to implement its five-year strategic plan, *Health Research Roadmap: Creating innovative research for better health and health care*, with its four strategic directions: investing in world-class research that supports the best ideas and the brightest minds; addressing health and health-system research priorities and fostering a greater integration of research into health care; accelerating the capture of health and economic benefits of health research in all sectors; and becoming a leading-edge organization in achieving results for Canadians. Specific initiatives planned include launching the implementation of the Strategy on Patient-Oriented Research with a coalition of stakeholders from the health charities, industry, provincial/territorial governments, academic healthcare organizations, faculties of medicine/health sciences and others. CIHR will also strengthen its International Collaborative Research Strategy on Alzheimer's Disease through additional investments and partnerships; and, continue the significant work of the Scientific Expert Group on Multiple Sclerosis research.

I applaud CIHR for the work it is doing on behalf of Canadians.

The Honourable Leona Aglukkaq, P.C., M.P.
Minister of Health

The original version was signed by
The Honourable Leona Aglukkaq
Minister of Health

SECTION I -- Departmental Overview

Raison d'être

CIHR is the Government of Canada's health research funding agency. It was created in June 2000 by the CIHR Act (Bill C-13) with a mandate "to excel, according to internationally accepted standards of scientific excellence, in the creation of new knowledge and its translation into improved health for Canadians, more effective health services and products and a strengthened Canadian health care system".

CIHR was designed to respond to the evolving needs for health research, and this is reflected in the difference of its mandate from that of its predecessor, the Medical Research Council of Canada. CIHR's mandate seeks to transform health research in Canada by:

- funding research on targeted priority areas, in addition to investigator-initiated research;
- placing a greater emphasis on the strength of the research community by building research capacity in under-developed areas and training the next generation of health researchers; and
- focusing on knowledge translation that facilitates the application of the results of research and their transformation into new policies, practices, procedures, products and services.

CIHR has thirteen Institutes:

- The Institute of Aboriginal Peoples' Health
- The Institute of Aging
- The Institute of Cancer Research
- The Institute of Circulatory and Respiratory Health
- The Institute of Gender and Health
- The Institute of Genetics
- The Institute of Health Services and Policy Research
- The Institute of Human Development, Child and Youth Health
- The Institute of Infection and Immunity
- The Institute of Musculoskeletal Health and Arthritis
- The Institute of Neurosciences, Mental Health and Addiction
- The Institute of Nutrition, Metabolism and Diabetes
- The Institute of Population and Public Health

These institutes are not "bricks-and-mortar" buildings but communities of experts. Each Institute supports a broad spectrum of research in its topic area: biomedical, clinical, health services and systems, and population and public health. Institutes form national research networks linking researchers, funders and knowledge users across Canada to work on priority areas. CIHR's innovative structure has been recognized around the world as a global best practice for supporting a solutions-focused, multidisciplinary and collaborative approach to health research.

CIHR reports through the Minister of Health and plays a key role in the Health Portfolio, the focal point for the Government of Canada's health-related activities. As Canada's health research funding agency, CIHR makes an essential contribution to the Minister of Health's overall responsibilities by funding the research and knowledge translation needed to inform the evolution of Canadian health policy and regulation; and, by taking an advisory role on research and innovation issues. This is achieved through an extensive and growing set of linkages with Health Canada and the Public Health Agency of Canada, providing decision-makers with access to high quality and timely health research knowledge.

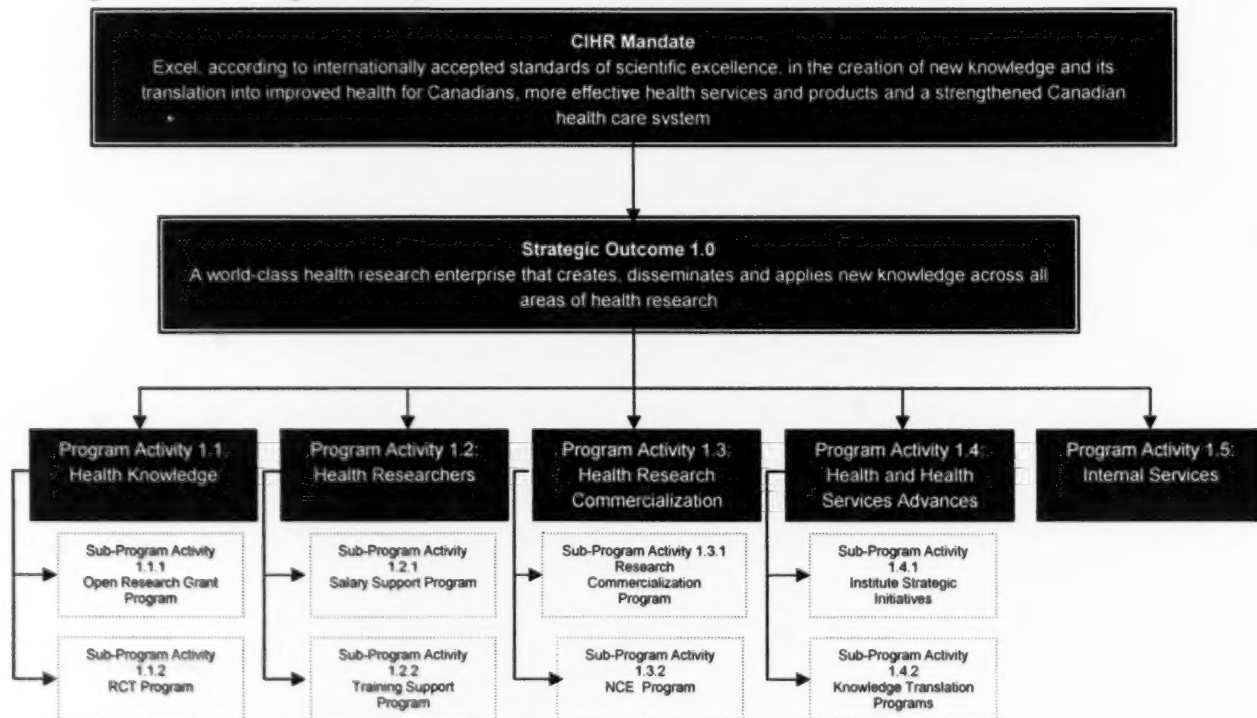
CIHR works closely with the Natural Sciences and Engineering Research Council (NSERC) and the Social Sciences and Humanities Research Council (SSHRC), the two Granting Councils of the Industry portfolio, to share information and co-ordinate efforts, harmonize practices; avoid duplication and foster multi-disciplinary research. The three organizations (referred to as “Tri-Council”) also try to make it easier for researchers and others to communicate with them, by providing single-window access whenever possible.

CIHR’s governance structure accords closely with its Program Activity Architecture (discussed in the following section). Governing Council (GC) sets the strategic directions and evaluates performance, supported by seven sub-committees. Leadership on research, knowledge translation and funding for research is provided by the Scientific Council (SC) and leadership on corporate policy and management is provided by the Executive Management Committee (EMC).

Strategic Outcomes and Program Activity Architecture (PAA)

CIHR’s Program Activity Architecture (PAA), approved by Treasury Board in May 2009, is shown in Figure 1 below. The PAA consists of one Strategic Outcome and five Program Activities that support the Strategic Outcome. The performance information presented in Section II is organized according to this PAA structure.

Figure 1: CIHR’s Program Activity Architecture



RCT: Randomized Control Trials

NCE: Networks of Centres of Excellence

Planning Summary

Financial Resources (in millions)

2011-12	2012-13	2013-14
\$ 983.4	\$ 963.4	\$962.3

Human Resources (Full-Time Equivalent—FTE)

2011-12	2012-13	2013-14
428	428	428

Strategic Outcome 1: A world-class health research enterprise that creates, disseminates and applies new knowledge across all areas of health research

Performance Indicators	Targets
Canadian ranking in health research intensity compared to international levels.	Maintain or increase international ranking.
Canadian number and share of world health research papers.	Maintain or increase share.
Number of citations of Canadian health research papers compared to international levels.	Maintain or increase international ranking.
Researchers per thousand workforce compared to international levels.	Maintain or increase international ranking.
Changes in health practices, programs or policies informed by CIHR-funded research.	Evidence that the work of CIHR funded researchers resulted in long-term impacts.
Diversity of research supported (by theme and Institute).	Maintain diversity of research and increase funding in priority areas.

Program Activity	Forecast Spending 2010-11 (in millions)	Planned Spending (in millions)			Alignment to Government of Canada Outcomes
		2011-12	2012-13	2013-14	
1.1 Health Knowledge	\$ 451.6	\$ 444.0	\$ 449.2	\$ 456.0	Healthy Canadians
1.2 Health Researchers	\$ 217.0	\$ 204.7	\$ 194.3	\$ 187.7	Healthy Canadians
1.3 Health Research Commercialization	\$ 43.5	\$ 45.9	\$ 43.1	\$ 44.8	Healthy Canadians
1.4 Health and Health Services Advances	\$ 274.3	\$ 261.6	\$ 249.7	\$ 246.7	Healthy Canadians
Total Planned Spending for Strategic Outcome #1	\$ 986.4	\$ 956.2	\$ 936.3	\$ 935.2	

Internal Services	Forecast Spending 2010-11 (in millions)	Planned Spending (in millions)		
		2011-12	2012-13	2013-14
1.5 Internal Services	\$28.3	\$27.2	\$27.1	\$27.1

Total planned spending from 2010-11 to 2013-14 is expected to decrease by \$52.4 million. This is partly due to incremental reductions of \$22.1 million for 2011-12 onward from the 2008 Strategic Review exercise, which resulted in CIHR winding down two of its programs (the Open Team Grant and the Intellectual Property Management programs). Funding for several of CIHR's programs are also sunseting by 2013-14, including the Business-Led Centres of Excellence, the Isotope Supply initiative, the expanded Canada Graduate Scholarships Program, and the Pandemic Preparedness Strategic Research Initiative, therefore reducing CIHR's planned spending by \$24.0 million. Lastly, there is also a decrease in planned spending of \$2.5 million for the Network Centres of Excellence starting in 2012-13. The remaining decrease of \$3.8 million is due to various other program funding adjustments.

Contribution of Priorities to Strategic Outcomes

In 2009, CIHR's Governing Council approved CIHR's second Strategic Plan (2009-2014), *The Health Research Roadmap: Creating innovative research for better health and health care*. This Strategic Plan is the product of widespread consultations with members of the health research community, careful assessment of Canada's strengths and weaknesses, and ongoing deliberation about what CIHR would like to achieve by 2014. Roadmap sets out a vision comprised of four strategic directions aligned with CIHR's corporate, business and operational priorities.

In 2010, CIHR developed a rolling, three-year implementation plan for Roadmap. This plan highlights the activities CIHR will undertake over the next three years in order to achieve the strategic directions outlined in Roadmap. A refresh of this implementation plan is scheduled to occur on an annual basis to assess how well CIHR is moving towards its strategic goals and priorities. CIHR will also be conducting regular updates to review the progress made on short-term activities and deliverables.

Operational Priorities	Type	Links to Program Activity	Description
Strategic Direction #1 Invest in world-class research excellence	On-going	1.1 Health Knowledge 1.2 Health Researchers	Research excellence is one of the benchmarks that will allow Canada to sustain its place in today's knowledge-based economy. Investing in excellence requires supporting the best ideas and brightest minds. Over the next four years, CIHR will undertake two significant reforms: (1) the Peer Review Reform, and (2) the Open Suite of Programs Reform. The Peer Review Reform will support a sustainable peer review system that: can evaluate all applications with the same degree of rigour and fairness irrespective of research area or methodology; can adapt as research evolves; makes optimal use of our Peers; and has a process of selecting the best reviewers. The Open Suite of Programs Reform will better capture excellence; support innovative/breakthrough research; improve the sustainability of the long-term research enterprise; and better integrate new talent.

			Excellence in health research is also defined by the ability to be creative and develop innovative solutions to current health challenges. Over the next four years, CIHR will foster international and interdisciplinary collaboration to support innovations in health research.
Strategic Direction #2 Address health and health system research priorities	On-going	1.4 Health and Health Services Advances	As a relatively small country, Canada must carefully select its investments to both capitalize on its areas of strength, and address gaps in key research areas and communities. Pursuing strategic investments allows CIHR to provide directed support to address the health and health system challenges that matter to Canadians. Over the next four years, CIHR will work to improve the focus, coherence and impact of its strategic investments.
Strategic Direction #3 Accelerate the capture of health and economic benefits of health research	On-going	1.3 Health Research Commercialization 1.4 Health and Health Services Advances	CIHR's role in knowledge translation (KT) is to gather evidence-informed information from health research, promote the dissemination and application of new knowledge to improve health and health services; and, facilitate the commercialization of research. Canadians reap the socio-economic benefits of health research when breakthroughs in health knowledge are applied to the development of health products, policies, practices, and programs. Over the next four years, CIHR, through its KT strategy, will continue to facilitate collaboration between knowledge users, industry, health care professionals, policy makers and the research community to translate health research into products and services that will benefit the health of Canadians.

Management Priorities	Type	Links to Program Activity	Description
Strategic Direction #4 Achieve organizational excellence, foster ethics and demonstrate impact	On-going	1.5 Internal Services	Named as one of Canada's Top-100 Employers in 2010, CIHR will continue to strive for organizational excellence. Over the next four years, through innovative program reforms and technology-based solutions, CIHR will improve the quality, efficiency and effectiveness of its program delivery systems and reduce complexity for stakeholders. CIHR is committed to continuously assessing its performance and demonstrating the benefits of its investments. In 2010-11, CIHR completed its second international review, which was conducted by a blue ribbon panel of experts. In 2011-12, the panel's findings and recommendations will be reviewed to discuss possible implementation strategies for strengthening CIHR's operations and that of its 13 Institutes over the next four years. CIHR is committed to fostering a culture of safe and ethical research, and encourages health researchers to consider the ethical implications inherent in their research. CIHR will continue promoting and assisting in the discussion and application of ethical principles to health research.

CIHR strives continually to strengthen its operations and programming while fostering a dedicated, well-informed workforce. Moreover, CIHR has consistently ensured that the cost of its operations are at or below 6% of its total appropriations, thus ensuring the vast bulk of its funding goes directly to support world-class health research and researchers.

Risk Analysis

CIHR understands the importance of risk management and has integrated risk management considerations into its strategic and operational planning, business processes and decision-making. The approved Risk Management Framework establishes how CIHR identifies, assesses and mitigates risk. The Framework also provides a governance model that promotes the accountability for risk management as well as defining the ongoing review and updating process for existing and potential risks to the organization.

On a continuous basis, CIHR monitors and assesses both identified and potential risks. Additionally, through out the year all risk owners are required to provide CIHR's Chief Risk Officer (CRO) with updates to their risk mitigation strategies in order to ensure their overall strategy and implementation target dates are reasonable and meet the needs of the organization.

Finally, in order to satisfy the governance and accountability requirements of the Risk Management Framework, both Governing Council and the Audit Committee receive regular reports on the issues relating to risk management as well as information on any changes to the Corporate Risk Profile from the CRO.

The current Corporate Risk Profile identifies 16 risks in total, with three risks in the profile are classified as High, as described below:

Risk	Explanation of Risk	Mitigation Strategy
<i>Health Research Roadmap Implementation</i>	There is a risk that CIHR is unable to fully deliver on the strategic directions outlined in the Health Research Roadmap in the defined timeframe. This includes risks that: internal and external stakeholders do not understand or support the proposed changes; and, that operational requirements and competing priorities prevent resources from focusing on the implementation.	Management has implemented or is in the process of completing the following: • A three-year rolling implementation plan for the Roadmap, which includes goals, key activities, and performance measures. • A planning and reporting framework to monitor progress, identify and resolve issues and identify and mitigate implementation risks to support decision-making. • A stakeholder engagement and communication plan.
<i>Knowledge Translation</i>	There is a risk that CIHR may not be able to support the synthesis, dissemination, exchange and ethically sound application of knowledge at the levels required to achieve the Knowledge Translation (KT) component of its mandate and to improve the health of Canadians.	Management has implemented or is in the process of completing the following: • A new KT Strategy for CIHR. • A core suite of CIHR KT programs that encourages and strengthens collaborations between researchers and knowledge users. • Launching funding opportunities that support evidence-informed policies to improve health and the health care system at both the provincial and federal levels.

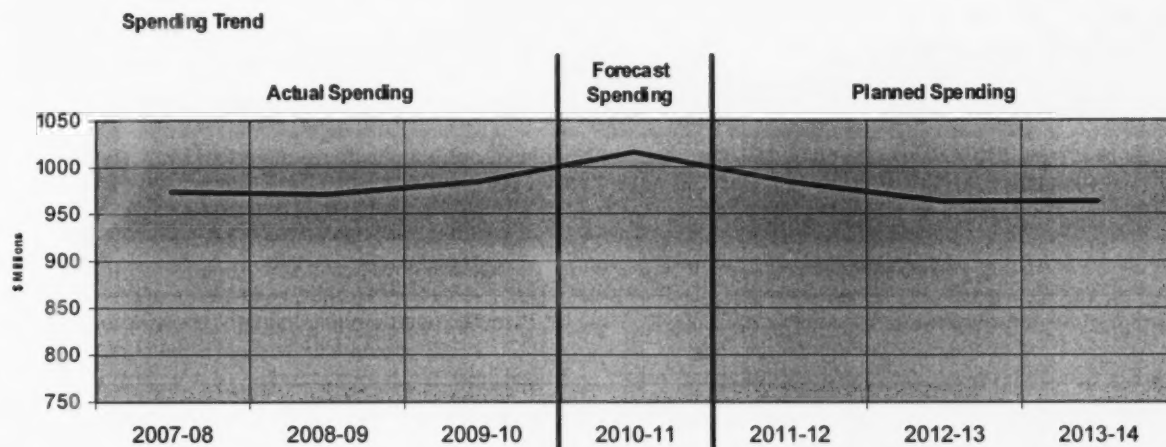
Risk	Explanation of Risk	Mitigation Strategy
<i>Results Management</i>	There is a risk that CIHR will be unable to evaluate and report on the results of CIHR's funded research inputs, outputs and impacts.	Management has implemented or is in the process of completing the following: • A five-year Evaluation Plan to assess all programming over the period. • An Impact Framework to report on results in a consistent way to demonstrate impact. • A set of common indicators to track results in support of the International Review being performed during the current fiscal year. • A research reporting system to allow the organization to access reports on results of CIHR funded research.

The three High-risk items summarized in the above table are all being actively managed by CIHR. The individual risk owners are in the process of implementing the approved mitigation strategies for each risk, with the overall expectation of reducing the current risk levels. The target dates established by these risk owners for the completion of their mitigation strategies have been reviewed and are considered reasonable by management and CIHR's Governing Council.

Expenditure Profile

Departmental Spending Trend

CIHR expenditures increased every year from its inception in 2000 through 2007-08, however, spending has remained fairly constant in recent years. Spending is expected to decrease slightly each year over the next three fiscal years, based on current spending authorities.



CIHR's total actual and forecasted spending has increased from \$974.1 million in 2007-08 to \$1,014.7 million in 2010-11. This is mostly due to increases to CIHR's base budget totaling \$50 million since 2007-08, which is offset by the impact of the 2008 Strategic Review which resulted in CIHR winding down two of its programs (the Open Team Grant and the Intellectual Property Management programs).

Following 2010-11, CIHR's planned spending is expected to decrease to \$962.3 million by 2013-14, a reduction of \$52.4 million mainly due to the incremental reductions of \$22.1 million in 2011-12 and onward resulting from the 2008 Strategic Review, a decrease in planned spending of \$24.0 million due to the sunsetting of several of CIHR's programs such as the Business-Led Centres of Excellence, the Isotope Supply initiative, the expanded Canada Graduate Scholarships program, and the Pandemic Preparedness Strategic Research Initiative and a reduction of \$2.5 million for the Network Centres of Excellence starting in 2012-13. The remaining decrease of \$3.8 decrease is due to various other program funding adjustments.

Estimates by Vote

For information on our organizational votes and/or statutory expenditures, please see the 2011-2012 Main Estimates publication. An electronic version of the Main Estimates is available at:

<http://www.tbs-sct.gc.ca/est-pre/20112012/me-bpd/info/info-eng.asp>.

SECTION II -- Analysis of Program Activities by Strategic Outcome

Strategic Outcome 1: A world-class health research enterprise that creates, disseminates and applies new knowledge across all areas of health research.

CIHR supports health research in order to improve the health of Canadians and to deliver more effective health care services to Canadians. Supporting health research that leads to this outcome may be through: creating health knowledge which leads to the development of new and better ways to prevent, diagnose and treat disease; ensuring Canada has top quality health researchers who can conduct innovative, as well as responsive, health research; commercializing health research discoveries; or advancing the introduction of effective practices and policies.

CIHR supports all of these approaches to better health, through four program activities: Health Knowledge; Health Researchers; Health Research Commercialization; and Health and Health Services Advances. All of CIHR's programs are aligned with the "Healthy Canadians" Government of Canada outcome.

Program Activity 1.1: Health Knowledge

This Program Activity supports the creation of new knowledge across all areas of health research to improve health and the health system. This is achieved by managing CIHR's open competition and related peer review processes based on internationally accepted standards of scientific excellence.

Human Resources (FTEs) and Planned Spending (in millions)					
2011-12		2012-13		2013-14	
FTEs	Planned Spending	FTEs	Planned Spending	FTEs	Planned Spending
85	\$ 444.0	85	\$ 449.2	85	\$ 456.0
Program Activity Expected Results		Performance Indicators		Targets	
Health research advances knowledge.		Outputs and impacts of CIHR-funded research.		Maintain or increase: ▪ Number of publications from CIHR-supported research; ▪ KT activities of CIHR-funded researchers; ▪ Total number and average dollar value of grants funded.	

Planning Highlights

The Open Research Grant Program provides operating funds to support research proposals in all areas of health research.

- The Open Operating Grants Program is the largest component of this program. Competitions are typically held each March and September with an open call for research proposals, with no restrictions on areas of research or maximum level of requested funds. This means that research scientists are free to apply for funding for projects in any areas of health, as they are in the best position to know what lines of inquiry are most likely to yield discoveries. CIHR follows a rigorous standard of peer review, which includes the assistance of mostly Canadian scientists who volunteer

their time to review and rank the applications that CIHR receives. All proposals are subject to the highest international standards of peer review to ensure quality and excellence. In 2011-12, CIHR intends to launch two competitions which will result in approximately 800 new multi-year grants per year. This will result in approximately 4,000 multi-year grants at any given time supported during the year with total planned spending of \$418.6 million.

- The Randomized Controlled Trial Program supports experiments to evaluate the efficiency and effectiveness of interventions in health, health services, or population health by randomly assigning individuals or groups to receive or not receive one or more interventions that are being compared. The results are analyzed by comparing outcomes in the different groups. The average value and duration of grants under the RCT Program is significantly greater than that of the Open Operating Grant Program. CIHR is forecasting to spend \$30.7 million for this program in 2011-12.

Benefits for Canadians

Canadians benefit from this health knowledge in a number of ways. Some research is aimed at immediate solutions such as finding ways of making the delivery of health services more efficient, while more basic research lays ground work for understanding preventative opportunities, such as the mechanisms underlying sodium-induced health risks.

For example, the work being done by Dr. Hertzog Gerstein of McMaster University has resulted in new insight into treatments that can reduce the risk of heart disease among people with Type 2 diabetes. His work with the ACCORD study group has found that aggressively controlling the blood pressure of Type 2 diabetic patients is *not* effective and that combining a statin (a drug commonly used to control cholesterol) with another drug called a fibrate was no better at reducing risk than the statin alone. The ACCORD group's work provides important guidance to physicians treating patients with Type 2 diabetes, many of whom are at greater risk of dying from cardiovascular disease.

Program Activity 1.2: Health Researchers

This Program Activity aims to build health research capacity to improve health and the health system by supporting the training and careers of the best health researchers through a competitive peer review process based on internationally accepted standards of scientific excellence.

Human Resources (FTEs) and Planned Spending (in millions)					
2011-12		2012-13		2013-14	
FTEs	Planned Spending	FTEs	Planned Spending	FTEs	Planned Spending
32	\$ 204.7	32	\$ 194.3	32	\$ 187.7
Program Activity Expected Results		Performance Indicators		Targets	
A strong and talented health research community with the capacity to undertake health research.		Number, types and share of graduate trainees in Canada compared to international levels.		Maintain or increase international ranking.	
		Number and fields of investigators and trainees funded.		Maintain number and diversity (by theme and Institute domain) of trainees funded.	

Planning Highlights

The Salary Support Programs provide salary support to help new health researchers develop their careers and devote more time to initiating and conducting health research. There is intense competition globally for talent and CIHR's programs are designed to attract and keep the brightest minds in Canada throughout their research careers. Young investigators will continue to be supported through the awarding of salary support awards that will enable them to devote more time to research.

For example, the Open Salary Support Program provides salary support to help new health researchers develop their careers and devote more time to initiating and conducting health research in any area related to health. In 2011-12, CIHR plans to spend \$13.6 million on salary support programs to support approximately 230 researchers.

The Training Support Programs provide support and special recognition to master, doctorate, post-doctorate or post-health professional degree students who are training in health research areas in Canada or abroad. For example, in 2011-12, CIHR plans to spend \$26.2 million on Open Training Support Programs.

A number of programs within this Program Activity are administered in collaboration with the Natural Sciences and Engineering Research Council and the Social Sciences and Humanities Research Council. They are often referred to as Tri-Council programs, and include:

- The Canada Research Chairs Program (CRC), which aims to attract and retain some of the world's most accomplished and promising researchers. CIHR provides two levels of salary support awards that are allocated to universities and research institutes who recruit researchers into the "Chair" positions. The CRC Program provides long term funding to outstanding researchers nominated by Canadian universities and other eligible academic institutions. The three Councils support a total of 700 Chairs in the health and life sciences domains managed by CIHR. In 2011-12 CIHR plans to spend \$103.6 million on this program.
- The Canada Excellence Research Chairs Program (CERC), which aims to support Canadian universities in their efforts to build on Canada's growing reputation as a global leader in research and innovation. Six, of the 19, Canada Excellence Research Chairs were awarded in Health and Related Life Sciences and Technologies. The amount of CIHR funding dedicated to this program totals \$60 million from 2010-11 to 2017-18.
- The Canada Graduate Scholarship Program (CGS), which supports the development of future health researchers at both the Master's and Doctoral levels in all health-related fields in Canada. This program is expected to increase Canada's capacity for innovation by providing exceptional full-time Master's and Doctoral students with the financial security they need to fully concentrate on their studies and engage in cutting-edge research. By supporting the best and brightest minds at the onset of their research careers, the CGS Program has the potential to position Canada among the world's most innovative countries in terms of research and development. In Budget 2009, CIHR was provided with an additional \$35 million over three years to temporarily expand the CGS Program. Note that 2011-12 will be the last year in which CIHR will receive this temporary funding.
- The Vanier CGS Program, which will enable Canada to build world-class research capacity by attracting and retaining the best doctoral students both nationally and internationally. Together with NSERC and SSHRC, in 2009-10, CIHR implemented modifications to the Vanier CGS Program to

address areas of improvement. By improving on the guidance, support and tools needed to administer and promote the Program, CIHR continues to support the creation of new products, services and policies that have the potential to improve Canada's economic competitiveness and the health of Canadians. In 2011-12, CIHR plans to expend \$8.4 million on the Program to support approximately 55 new scholarships and 111 ongoing scholarships.

- The Banting Post-Doctoral Fellowship Program, which will further allow Canada to build on its world-class research capacity by recruiting top-tier postdoctoral trainees at an internationally competitive level of funding. This program completes the federal suite of programs that support building health research capacity at all stages of a researcher's career. The Banting Post-Doctoral Fellowship Program is expected to help post-doctoral researchers develop their leadership potential and position them for success as research leaders, positively contributing to Canada's economic, social and research-based growth through a research-intensive career. CIHR has been allocated \$1.7 million in 2010-11, and \$3.4 million annually thereafter to support this new program.

Benefits for Canadians

Canadians benefit from this program activity by having a strong research community that is well positioned to respond to the health challenges Canadians face. CIHR provides direct support to approximately 3,000 researchers and trainees, including undergraduates, masters and doctoral students, postdoctoral fellows and new investigators/researchers through research stipends, many of whom are just getting started in their independent research careers. Additionally, more than 6,000 researchers and trainees are supported by CIHR research grants.

The calibre of these researchers emerges when one looks at, for example, Dr. David Hammond of the University of Waterloo, Canada's Premier Young Researcher for 2010. In an effort to reduce the burden of health caused by tobacco use, Dr. Hammond analysed how the tobacco industry designed labels to recruit new smokers, and demonstrated how that same packaging could be used to discourage people from smoking. Findings from his research have been incorporated into the World Health Organization's Framework Convention on Tobacco Control (WHO FCTC), which aims to reduce the international demand for, and regulate the supply of, tobacco products.

Program Activity 1.3: Health Research Commercialization

This program activity supports and facilitates the commercialization of health research to improve health and the health system. This is achieved by managing funding competitions to provide grants, in partnership with the private sector (where relevant); by using peer review processes based on internationally accepted standards of scientific excellence; and by building and strengthening the capacity of Canadian health researchers to engage in the commercialization process.

Human Resources (FTEs) and Planned Spending (in millions)					
2011-12		2012-13		2013-14	
FTEs	Planned Spending	FTEs	Planned Spending	FTEs	Planned Spending
6	\$ 45.9	6	\$ 43.1	6	\$ 44.8

Program Activity Expected Results	Performance Indicators	Targets
Commercial activity – products (patents and intellectual property), companies and employment generated.	- Health research is commercialized more effectively. - Strong linkages and partnerships created between universities, governments, industry, and other users.	Maintain or increase: - Numbers of patents, licenses, copyrights, centres; - New products or processes; - Policies influenced or created; - Influence on health delivery.

Planning Highlights

The Research Commercialization Programs are a suite of funding initiatives that aim to support the creation of new knowledge, practices, products and services and to facilitate the commercialization of this knowledge. This is done by funding research commercialization projects (such as proof of principle projects) which encourage collaboration between academia and industry in the promotion and support of the commercial transfer of knowledge and technology resulting from health research. In 2011-12, CIHR is planning expenditures of \$16.0 million for research commercialization programs.

The suite of Networks of Centres of Excellence Programs (NCE) is delivered collaboratively by NSERC, SSHRC, and CIHR through the NCE Secretariat. They support partnering centres of research excellence with industry capacity and resources, and strategic investment to turn Canadian research and entrepreneurial talent into economic and social benefits for Canada. The NCE programs are national in scope, multi-disciplinary and involve multi-sectoral partnerships between academia, industry, government and the not-for-profit sector (non-governmental organizations). These programs include the NCE grants, the Business-Led Networks of Centres of Excellence Program, and the Centres of Excellence for Commercialization and Research Program (CECR).

- The Networks of Centres of Excellence Program (NCE) supports the best NCE applications in the area of health research. In 2011-2012, CIHR will be funding nine of 13 NCE, and in 2012-2013, 2 of 4 NCE will receive CIHR funds. In 2011-12, CIHR plans to spend \$27.5 million on these grants.
- The Business-Led Networks of Centres of Excellence Program (BL-NCE) funds large-scale, collaborative networks to perform research to support private sector innovation in order to deliver economic, health, social and environmental benefits to Canadians. In 2011-12, the last year for which BL-NCE will be receiving funds, CIHR plans to spend \$1.7 million.
- The Centres of Excellence for Commercialization and Research (CECR) support the operation of research and commercialization that bring people, services and research infrastructure together to position Canada at the forefront of breakthrough innovations. The third competition for this program was held in 2010-11, and CIHR's planned expenditures are \$9.4 million in 2010-11 and \$9.3 million in 2011-12.

Benefits to Canadians

Encouraging partnership between health researchers and the private and non-profit sectors is an innovative way of fostering both the health and economic benefits of research. Not only does it provide an effective vehicle for translating new health knowledge into products and services that have the potential to improve the health of Canadians, it also stimulates the economy by creating jobs and producing a competitive advantage for Canada in the global economy.

CIHR recognizes the importance of the commercial process and its role in getting innovative health products to Canadians. One such product making its way from bench to bedside belongs to Dr. Michael Glogauer of the University of Toronto, who developed an oral rinse that can detect neutrophil levels and monitor a person's susceptibility to infection. In a recent effectiveness study, the oral rinse was able to reliably predict whether children who had undergone bone marrow transplants were at an increased risk of infection during recovery up to one week earlier than blood tests would normally predict. To date, the rinse has been patented, and is being further tested to demonstrate its ability to predict the onset of periodontal disease. Canadian company CHX Technologies has partnered with Dr. Glogauer, and is eager to commercialize the product.

Program Activity 1.4: Health and Health Services Advances

Through the competitive peer review process, based on internationally accepted standards of scientific excellence, the programs described below aim to support the creation of new knowledge in strategic priority areas and its translation into improved health and a strengthened health system.

Human Resources (FTEs) and Planned Spending (in millions)					
2011-12		2012-13		2013-14	
FTEs	Planned Spending	FTEs	Planned Spending	FTEs	Planned Spending
112	\$ 261.6	112	\$ 249.7	112	\$ 246.7
Program Activity Expected Results		Performance Indicators		Targets	
Translation and use of health research takes place as a result of effective funding programs.		- Outputs and impacts of CIHR funded research. - Evidence of Institutes emerging leadership within the research community.		Increase or maintain: - Number and average dollar value and duration of grants funded; - Number of publications from CIHR funded research; - KT activities of CIHR-funded researchers.	

Planning Highlights

The Knowledge Translation (KT) Program consists of a suite of funding opportunities that aim to support the synthesis, dissemination, exchange and ethically sound application of knowledge in any area of health research. This program supports the science of KT, capacity development in KT science, and integrated KT-collaborative research, which involves researchers and knowledge users working together to address relevant research questions and to exchange and apply knowledge to solve health and health system problems. In 2011-12, CIHR plans to spend \$25.8 million on various initiatives supporting knowledge translation. Examples of these include:

- The Evidence-Informed Healthcare Renewal (EIHR), which mobilizes rapid and robust research that responds to policy makers' evidence needs and convenes opportunities for KT with policy makers on the important topic of healthcare renewal in Canada. Starting in 2011-12, CIHR will be investing \$5 million over 5 years to support EIHR.

- The KT Supplement Program, which provides supplemental funding to enable widespread dissemination and implementation of research findings to communities beyond the traditional scientific community to accelerate the capture of the benefits of health research. Implementation of this program will require the use of active KT strategies and interventions to relay new health information and practices in a way that is more accessible to key stakeholders and knowledge users than publications in peer reviewed journals. CIHR plans to invest \$2 million in 2010-11, and \$6 million in 2011-12 on the KT Supplement Program.

The Institute Strategic Initiatives Program is led by CIHR's 13 Institutes and funds grants to support research and awards to support trainees and researchers in strategic priority areas to address health opportunities, threats and challenges to Canadians. The Institutes identify these areas in consultation with stakeholders from government, health care, patient and community groups, researchers, and industry. Proposals are solicited from researchers by issuing a Request for Applications outlining the specific theme/area where research is needed. Applications are peer reviewed using criteria specific to the funding opportunity. In 2011-12, CIHR plans to spend \$155.8 million on these types of initiatives.

Some of the Institute Strategic Initiatives include:

- The International Collaborative Research Strategy for Alzheimer's Disease will bring together the world's leading Alzheimer's disease and related dementias (ARD) researchers to accelerate progress particularly in early diagnosis and treatment of the disease. The Initiative was launched in 2010-11, and CIHR plans to spend \$11.3 million over the next fiscal years in partnership with United States, France, United Kingdom, Germany and China, amongst others.
- The Regenerative Medicine and Nanomedicine Initiative (RMNI) is a major long-term CIHR initiative, co-led by the Institute of Neurosciences, Mental Health and Addiction and the Institute of Genetics. RMNI and its partners provide support for research in nanomedicine, gene therapy, stem cells, tissue engineering, and rehabilitation sciences. The fundamental goal of this initiative is the development of meaningful multi-disciplinary research approaches to regenerative medicine and nanomedicine. Research into the maintenance of health or prevention of disease and degeneration is also encompassed by this initiative. In 2011-12, CIHR plans to spend \$6.7 million on this initiative.
- The Canadian Breast Cancer Research Initiative, which started in 2010-11, dedicates \$3 million annually to continue to fund targeted breast cancer research.
- The Isotope Supply Initiative provides funding in 2010-11 and 2011-12 (\$4.7 million annually) to support research, development and demonstration of new technologies, to optimize the use of medical isotopes and alternative medical imaging technologies, and to establish a clinical trials network to test new isotopic and non isotopic tools.

CIHR also funds pan-Institute strategic initiatives, including:

- The HIV/AIDS Research Initiative, a targeted investment that supports four research streams - biomedical and clinical research, health services and population health research, community-based research and the Canadian HIV Trials Network. In 2011-12, CIHR plans to expend \$22.7M on prevention and access to diagnosis, care, treatment and support for those populations most affected by the HIV/AIDS epidemic in Canada.
- The Strategy on Patient-Oriented Research Initiative (SPOR). SPOR is a nation-wide coalition aimed at improving health outcomes and service delivery by enhancing the clinical application and economic impact of effective health innovations, and by providing health care professionals and

policy-makers with information on how to deliver high-quality care and services in a cost-effective manner. In collaboration with the provinces, CIHR aims to improve the clinical research environment and infrastructure; set up mechanisms to better train and mentor health professionals engaged in patient-oriented research; strengthen organizational, regulatory and financial support for clinical studies; and, identify and promote the use of best practices in health care. In 2011-12, CIHR plans to spend \$33.2 million on SPOR.

- The Drug Safety and Effectiveness Network Initiative (DSEN) is a partnered initiative with Health Canada. It links centres of excellence in post-market pharmaceutical research across Canada to facilitate targeted research to increase knowledge about the real world safety and effectiveness of drugs. This network increases the available evidence on drug safety and effectiveness available to regulators, policy-makers, health care providers and patients; and, increase capacity within Canada to undertake high-quality post-market research in this area. In 2011-12, CIHR plans to spend \$7.4 million.
- The National Anti-Drug Strategy Treatment Research Initiative is a targeted investment to support grants for strategic research that will help develop and evaluate drug treatment models and approaches, as part of the Strategy's Treatment Action Plan. In 2011-12, CIHR plans to spend approximately \$1 million on this initiative.
- The Official Language Minority Communities (OMLC) research initiative was created in 2004, and supports research to reduce health disparities between official language minority and majority communities in Canada. It also aims to increase the number of researchers in this area and promotes strategies to ensure the uptake of new knowledge into practice. In 2011-12, CIHR plans to spend \$400,000 on this initiative.

Benefits for Canadians

The funding of health research in strategic areas has a number of benefits. First, it reduces human suffering caused by specific conditions. For example, in the area of regenerative and nano-medicine, Dr. Tim Kieffer from the University of British Columbia is using gene therapy to regenerate healthy beta cells in the pancreas. Beta cells are responsible for the production of insulin in the human body; when these cells are damaged, individuals develop diabetes. If Dr. Kieffer's research is successful, it could spell an end to multiple daily injections of insulin for people with diabetes.

Second, research finds ways to make Canada's health system more responsive and efficient through collaboration and knowledge sharing. For example, *SafetyNet*, an extensive CIHR-funded community research alliance led by Drs. Stephen Bornstein and Barbara Neis, is bringing together employers, union representatives, government policy makers, researchers, practitioners and community members from Newfoundland and Labrador to find solutions to health and safety risks associated with occupations such as shellfish processing. The use of a Community-Based Approach (CBA) has allowed those people most involved and aware of the realities of their communities to play a leading role in deciding when and how to intervene. The tools and resources they have developed have been shared with coastal communities across Atlantic Canada and with an international network of researchers.

Program Activity 1.5: Internal Services

Internal Services are groups of activities and resources that apply across the organization to support the needs of programs and to meet other corporate obligations of CIHR. These services include such functional areas as Finance, Planning, Human Resources, Information, Technology and Administration Management Services, Strategic Policy, Internal Audit, Evaluation and Risk Assessment, Communications and Public Outreach, and Corporate Governance.

As identified in the Management Priorities, CIHR will continue to strive for organizational excellence and offer a world-class working environment. CIHR will also continue to focus on building a culture of ethical research by promoting and assisting in the discussion and application of ethical principles to health research. In 2011-12, CIHR will complete its second international review, which will assess its performance and related benefits of its investments. Upon completion, executive management will review the recommendations made from the panel of 'blue ribbon' experts, and develop an action plan.

Human Resources (FTEs) and Planned Spending (in millions)					
2011-12		2012-13		2013-14	
FTEs	Planned Spending	FTEs	Planned Spending	FTEs	Planned Spending
193	\$ 27.2	193	\$ 27.1	193	\$ 27.1

SECTION III -- Supplementary Information

Financial Highlights

For more information, details on CIHR's Future-Oriented Financial Statements can be found at:
<http://www.cihr-irsc.gc.ca/e/43078.html>

Future-oriented Condensed Statement of Financial Operations

For the Year (Ended March 31)

(\$ millions)

	% change	Future-oriented 2011-12	Future-oriented 2010-11
Expenses			
Total Expenses	(3.0%)	\$ 997,835	\$ 1,029,213
Revenues			
Total Revenues	(10.1%)	\$ 10,253	\$ 11,405
Net Cost of Operations	(3.0%)	\$ 987,582	\$ 1,017,808

List of Supplementary Information

- The Departmental Plan for Transfer Payment Programs (TPPs) (<http://www.cihr-irsc.gc.ca/e/41045.html>)
- Details on Transfer Payment Programs (TPP)
- Greening of Government Operations
- Sources of Respendable and Non-Respendable Revenue
- Upcoming Internal Audits and Evaluations over the next three fiscal years
- Future-Oriented Financial Statements (<http://www.cihr-irsc.gc.ca/e/43078.html>)
- CIHR's Corporate Risks for 2010-11 (<http://www.cihr-irsc.gc.ca/e/43079.html>)

(All electronic supplementary information tables found in the 2011-12 Report on Plans and Priorities can be found on the Treasury Board of Canada Secretariat's web site at: <http://www.tbs-sct.gc.ca/rpp/2011-2012/info/info-eng.asp>.)

Other Items of Interest

1. CIHR's Strategic Plan: Health Research Roadmap: Creating innovative research for better health and health care 2009/10 - 2013/14: <http://www.cihr-irsc.gc.ca/e/39977.html>
2. CIHR Three-Year Implementation Plan and Progress Report 2010-13: <http://www.cihr-irsc.gc.ca/e/42152.html>
3. Various CIHR Annual Reports: <http://www.cihr-irsc.gc.ca/e/153.html>
4. Knowledge Translation and Commercialization: <http://www.cihr-irsc.gc.ca/e/29529.html>
5. CIHR Institutes – More information, including Institute Strategic Plans and Annual Reports, is available through CIHR's web site: <http://www.cihr-irsc.gc.ca/e/9466.html>

Internet Addresses

Canadian Institutes of Health Research (CIHR) Home Page	http://www.cihr-irsc.gc.ca/e/193.html
Aboriginal Peoples' Health	http://www.cihr-irsc.gc.ca/e/8668.html
Aging	http://www.cihr-irsc.gc.ca/e/8671.html
Cancer Research	http://www.cihr-irsc.gc.ca/e/12506.html
Circulatory and Respiratory Health	http://www.cihr-irsc.gc.ca/e/8663.html
Gender and Health	http://www.cihr-irsc.gc.ca/e/8673.html
Genetics	http://www.cihr-irsc.gc.ca/e/13147.html
Health Services and Policy Research	http://www.cihr-irsc.gc.ca/e/13733.html
Human Development, Child and Youth Health	http://www.cihr-irsc.gc.ca/e/8688.html
Infection & Immunity	http://www.cihr-irsc.gc.ca/e/13533.html
Musculoskeletal Health and Arthritis	http://www.cihr-irsc.gc.ca/e/13217.html
Neurosciences, Mental Health and Addiction	http://www.cihr-irsc.gc.ca/e/8602.html
Nutrition, Metabolism and Diabetes	http://www.cihr-irsc.gc.ca/e/13521.html
Population and Public Health	http://www.cihr-irsc.gc.ca/e/13777.html